

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A quality assured network service provision system compatible with a multi-domain network, wherein

a communication network comprising a plurality of operations management networks (domains) which are connected to a plurality of customer networks with user terminals and which are respectively managed by different providers, ~~includes the system comprising:~~

a network service management device for collectively managing device clusters incorporated within an operations management network of each of said providers, and ~~receiving service orders and faults information from customers negotiating with another operations management network which is managed by another provider and with which interconnection is to be established based on a required quality level from a customer so as to ensure an end-to-end quality level;~~ and

a service broker device at the functional host layer of said network service management device cluster for storing information on the operations management networks managed by the respective providers, and brokering a service providing a broker function for achieving agreement between the operations management networks of said plurality of providers.

2. (Previously Presented) The quality assured network service provision system compatible with a multi-domain network according to claim 1, wherein

said network service management device comprises an outputting device for outputting information on services which can be provided by each of said providers and domain information to said multi-service broker; and

said service broker device comprises a device for storing output information from each network service management device, selecting a network service management device of a domain which will satisfy a required quality level when a

network service request is generated by a customer, and issuing instructions for introducing and setting necessary information.

3. (Previously Presented) The quality assured network service provision system compatible with a multi-domain network according to claim 2, wherein

said network service management device comprises an input and output device for input, by an operator, of information on services which can be provided by said provider and domain information made up of configuration information about an operations management network of said provider;

storage devices for storing information input from said input and output device by information type;

a workflow server for determining transfer destinations for processing commands based on each service request from a customer;

a bandwidth broker for registering said domain information and service information in said service broker device, and determining, in cooperation with said workflow server, a subject for executing a subsequent process; and

an internal processing system for performing processing management of information required by said communication device.

4. (Previously Presented) The quality assured network service provision system compatible with a multi-domain network according to claim 2, wherein

said service broker device comprises a storage device for storing service information and domain information received from said network service management device; and

a data processing device for performing information processing such as writing and reading of information to and from said storage device, as well as providing a security management function relative to said bandwidth broker.

5. (Previously Presented) The quality assured network service provision system compatible with a multi-domain network according to claim 3, wherein
said bandwidth broker and said workflow server have a means for deciding, based on logic, whether a subject for executing a subsequent process due to a customer service request is in an external system or an internal system; and
said bandwidth broker has a means for deciding a domain in cases where a subject for executing a subsequent process is in an external system; and
said workflow server has a means for deciding an internal processing system of a forward destination in cases where a subject for executing a subsequent process is in an internal system.

6. (Previously Presented) The quality assured network service provision system compatible with a multi-domain network according to claim 3, wherein
said service broker device has a means for referring to service information stored in said service storage section and deciding whether a subject for executing a subsequent process due to a customer service request is in an external system or an internal system;
a means for deciding an external forward destination in cases where a subject for executing a subsequent process is in an external system; and
a means for deciding an internal processing system of a forward destination in cases where a subject for executing a subsequent process is in an internal system.

7. (Previously Presented) The quality assured network service provision system compatible with a multi-domain network according to claim 3, wherein
said internal system comprises any one of a customer care server for managing service order information received from customers,
a design server for managing network resources of an operations management network of a provider,

a policy server for reading pre-recorded policy information, as well as converting said policy information into setting information for a communication device of a specific vendor, and performing provisioning of a communication device for the provision of a service, and

a network management device for providing a network fault management function for a configuration management and open channel incorporating communication devices within an operations management network of a provider and connection configuration of circuitry for connecting said communication devices, each of which is connected to said workflow server.

8. (Currently Amended) A method of providing a quality assured network service compatible with a multi-domain network comprising

a plurality of operations management networks (domains) ~~domains~~ which are connected to a plurality of customer networks with user terminals and which are respectively managed by different providers, and incorporating

a network service management device for collectively controlling device clusters incorporated within an operations management network of each of said providers, ~~as well as receiving service orders and faults information from customers and negotiating with another operations management network which is managed by another provider and with which interconnection is to be established based on a required quality level from a customer so as to ensure an end-to-end required quality level,~~ and

a service broker device at the functional host layer of said network service management device cluster for providing a broker function for ~~achieving agreement between~~ interconnecting the operations management networks of said plurality of providers, wherein said method comprises:

a service registration step in which a network management device of each provider registers in said service broker device, domain information comprising configuration information and information on services which can be provided;[[.]]

a service agreement step in which a request is received from [[a]] the customer, said service broker device and said network management device reach an agreement relating to service conditions for providing a service which will satisfy a required quality level, and route information for an appropriate domain and a network management device are selected; [[,]] and

a service provisioning step for performing ~~required~~ service provisioning on a communication device based on service conditions and route information agreed upon in said network management device.

9. (Previously Presented) The method of providing a quality assured network service compatible with a multi-domain network according to claim 8, wherein said service provisioning step further comprises a step for service order processing, a step for route design processing, and a step for provisioning processing.

10. (Currently Amended) A service broker device in an interconnected network for ~~providing~~, in a network comprising a plurality of operations management networks which are connected to a plurality of customer networks with user terminals and which are respectively managed by different providers, the service broker device being provided with

a broker function for storing information on the plurality of operations management networks managed by the respective providers, and brokering a service achieving agreement between a plurality of providers based on configuration information and information on the services which can be provided by each provider network the operations management networks which are managed by the providers and which are to be interconnected based on a required quality level from a customer,

wherein said service broker device is at a functional host layer of a network service management device.

11. (New) The quality assured network service provision system compatible with a multi-domain network according to claim 1, wherein a single service broker device is provided in the communication network, and the service broker device manages domain information and information on services which can be provided by the respective providers for all the operations management networks connected thereto.

12. (New) The quality assured network service provision system compatible with a multi-domain network according to claim 1, wherein the service broker device designs an inter-domain connection route and the network service management device designs an intra-domain route so as to satisfy the required quality level.

13. (New) The quality assured network service provision system compatible with a multi-domain network according to claim 1, wherein quality levels which can be provided and methods for specifying the quality levels are different for the respective providers, and the service agreement is reached in such a way that required quality levels are associated with service levels in the respective providers in order to maintain the quality levels at a constant level in the multi-domain network.

14. (New) The quality assured network service provision system compatible with a multi-domain network according to claim 1, wherein a bandwidth broker provided in the network service management device refers to available resource capacity between the domains and service information, and determines whether an agreement is possible by checking whether requested service information can be accommodated by a service agreed to between the domains.

15. (New) The quality assured network service provision system compatible with a multi-domain network according to claim 1, wherein the agreement is one relating to service conditions for providing a service of consistent quality throughout the multi-domain network which satisfies the required quality level.